

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.21**WELDING WITNESS REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WWR-000008**Date Inspected:** 13-Nov-2006**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Shanghai, China

**Witness:**      **Procedure Qualification Record**  
**Welding**                      **NDT**

**Welder Qualification**                      **Fracture Critical**  
**Mechanical Testing, describe:**AWMT, Reduced Section,  
Charpy-V, Side Bend &  
Macro

**Index Lot #:** B72-048-06A**Witness Lot #:** B60-017-06**Bridge No:** 34-0006**Component:** N/A**Welder:** Lei Li Chao**ID #:** 053619**Joint Description:** B-U2a-GF**N/A**      **WPS ID #:** PWPS B-T-2231FB      **N/A****Base Metal:** A709M 345**N/A**      **PQR ID #:** HP-2006104 (Min)      **N/A****Thickness:** 26mm**N/A**      **Process:** FCAW      **N/A****Electrode Spec/Class:** A5.20/E71T-1**N/A**      **Positions:** 1G      **N/A****Backing Material:** A709M**N/A**      **CWI:** Liu Liu      **N/A****Average Amps:** 301.2**N/A**      **AWS Code:** AWS D1.5 (2002)      **N/A****Average Volts:** 31.2**N/A**      **Applicable Sec:** 5.12 Min & 12      **N/A****Travel Speed:** 381.6mm/min**N/A**      **Heat Input:** 1.48kilojoules/mm      **N/A****Preheat:** 39.1C**N/A****Summary of Items Observed:**

: The Quality Assurance Inspector observed mechanical testing of the 1G FCAW Minimum Heat Input PQR. The All Weld Metal Tensile (AWMT) sample and one Side Bend Specimen do not appear to comply with the contract documents. The AWMT had an elongation of 6% (required 22% minimum). The one Side Bend Specimen had a 4.8mm long tear with no signs of slag or porosity. All other mechanical tests appear to comply with the contract documents.

**Summary of Conversations:**

ZPMC will prepare additional samples out of extra material for re-test. See TL-6031 for additional details.

**Observed welding,testing or results:** is in general conformance with the contract requirements.

is not in conformance with the contract requirements.

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural

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## WELDING WITNESS REPORT

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Materials for your project.

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**Inspected By:** McClary,David

Quality Assurance Inspector

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**Reviewed By:** Lowry,Patrick

QA Reviewer